

*Mission and
impact-driven:*
Research and
Creative Work
at the Ateneo



ATENEO DE MANILA
UNIVERSITY



Message of the Vice President for Higher Education

Ateneo de Manila University prides itself on being a bedrock of liberal arts education that seeks to cultivate in the students the core values of competence, conscience, compassion, and commitment to the common good. These same values are upheld by scholars that engage in research and creative work and pursue innovation in their different fields of specialization. In Ateneo's Higher Education, each school – with its research centers – showcases expertise that also serves as a gateway for interdisciplinary collaboration among different departments.

- *The School of Humanities* houses the creatives that showcase the richness of Philippine cultural tradition and put us in the limelight for timely and relevant theater/musical performances, cinema and multi-media productions, as well as bag literary awards in national and international competitions.
- *The John Gokongwei School of Management* engages in research that ties up social entrepreneurship and business ventures geared towards not just profit generation but also ethical leadership.
- *The School of Science and Engineering* pioneers in research on current and emerging technologies that respond to societal needs (like the COVID-19 pandemic), disaster risk and mitigation, and science, mathematics, and engineering education.
- *The School of Social Sciences*, using a problem-solving framework, engages in research that investigates social issues from the perspective of economics, political science, psychology, sociology-anthropology, history, and development studies.
- *The Gokongwei Brothers School of Education and Learning Design* looks into curricular reforms, digital education, educational leadership and policies as well as new teaching-learning modalities.

- *The School of Medicine and Public Health* is at the forefront of looking into the issues of public health vis-à-vis universal healthcare management and administration.
- *The School of Law* is engaged in human rights issues and the role of Philippine jurisprudence in matters related to these.
- *The Ateneo Graduate School of Business* specializes in business case studies that address management issues in the particular context of fostering societal values and business and economic and social responsibility.
- *The Ateneo School of Government* focuses on research that has an impact on policy reforms and innovative solutions that strengthen key democratic institutions like elections, political parties, legislature, bureaucracy, and accountability institutions.

In this vibrant community of scholars, warm relationships foster the crossing of disciplinary borders and allow for the congenial sharing of expertise and resources. The university facilitates the production of knowledge through research and creative work grants as well as sandbox spaces for the development of innovative ideas. The university also provides incentives for the proper dissemination of ideas through open-access grants, and conference presentations support; ArchiumAteneo also serves as a repository of information regarding any scholarly activity produced by faculty members and research centers; the availability of Ateneo journals and the University Press also inspires publications.

Where more heightened support and appreciation are accorded for scholarships with great impact on the common good, there is no better time than now for research, creative work, and innovation to flourish in Ateneo Higher Education.

MARIA LUZ C. VILCHES, PHD

Vice President for Higher Education

Mission and impact-driven: Research and Creative Work at the Ateneo

Ateneo’s contribution to the advancement of human knowledge through innovation, inquiry, and insight is in line with the current challenges and demands of the Philippine economy, culture, and society, set in an emerging and transforming global context.

Rooted in its identity as a Filipino, Catholic, and Jesuit university, Ateneo’s research and creative work seeks to make real-world impact that enriches and transforms lives. For more than 160 years, the Ateneo has continually nurtured excellence and innovation by fostering a collaborative and supportive environment for scholars, researchers, and artists. The university is home to several leading scientists and artists, and many other faculty members recognized in their respective fields who mentor and collaborate with young and promising scholars.

With its 30 research and innovation centers based in nine schools, the Ateneo is ready to engage with partner institutions locally and internationally in seeking innovative and sustainable solutions to society’s most pressing challenges.

Ateneo’s reputation as a leader in research and creative work has been recognized. The university

debuted as the top Philippine higher education institution in the Times Higher Education (THE) World Rankings for 2023. Its highest score was in citations, placing 60th globally, which attests to the institution’s “role in spreading new knowledge and ideas,” and “how much each university is contributing to the sum of human knowledge.”

Driven by its vision to be a “force for good,” the Ateneo ranked as the top Philippine institution in the 2022 THE Impact Rankings, based on their research output, outreach, teaching, and stewardship programs related to the United Nations Sustainable Development Goals (SDGs). Ateneo led Philippine universities in the SDGs of Clean Water and Sanitation (SDG 6), Sustainable Cities and Communities (SDG 11), Peace, Justice, and Strong Institutions (SDG 16), and Partnership for the Goals (SDG 17).

Strategic Priority Areas

Ateneo de Manila University seeks to be a force for good in seeking innovative and sustainable solutions to society’s most pressing challenges.

Ateneo’s research and creative work are anchored in the university’s four Strategic Priority Areas set out by the Lux In Domino Strategic Plan for 2021-2030.



Education Reform and Transformation

Innovative education for all, leveraging human creativity and technology

Ateneo de Manila seeks to lead in innovative, leading-edge teaching and learning that is open, inclusive, values-based, and responsive to the needs of a fast-changing world.

Integral Ecology

Recognition as a Laudato Si’ university for exemplary leadership in the promotion of integral human development

Within and outside its walls, Ateneo de Manila aims to lead the way in sustainable and integral human development. Caring for our common home and the welfare of all creation is at the heart of all the university’s endeavors.

Universal Health and Well-Being

Efficient, accessible, affordable and equitable healthcare in the Philippines through effective public health leadership

The nation’s public health system calls for innovative leadership that addresses emerging threats and builds on our collective experience with healthcare challenges and opportunities. It is a kind of leadership Ateneo de Manila can foster within its community, marked by inclusivity, care, and compassion.

Bridging Cultural Divides

Committed collective action to solve ‘wicked problems’ by transcending cultural differences across social, economic, political, and other divides

Reconciliation and healing in society will only begin once people recognize that there is a diversity of ideas and experiences. Ateneo de Manila can be a platform that brings together people for civil, open, and respectful dialogues, allowing them to better understand each other, overcome differences, and act together for a better world.



EDUCATION REFORM AND TRANSFORMATION

Understanding education systems, enabling teachers and learners

EOS TRINIDAD, instructor in the Department of Interdisciplinary Studies, believes that “education is Ateneo de Manila University’s strength, and that of all Jesuit institutions in general.” For him, leveraging this strength can bring about the possibility for societal, economic, and democratic advancement.

It is for this reason that Trinidad, who received his Joint PhD in Sociology and Comparative Human Development at the University of Chicago, pursued education policy and organizations as his research interest. “Education for me is a concrete way by which we can bring a more just world and I feel I can concretely contribute there with the skills I have as well,” he says.

More recently, he examined data from the Philippines’ participation in the Programme for International Student Assessment (PISA). This study involved a survey of 15-year-old students and factors associated with their achievement.

What he found was that specific factors such as school climate, structural forces, and particular sectors are important predictors in education. For instance, Trinidad notes how a good number of schools in rural areas do not have enough teachers compared to those in urban areas. Understanding these specific facets and their sources could help policymakers and authorities make the necessary interventions and investments to improve the quality of education.

“What we’ve done as researchers is to provide more capacity, more ways of looking through this type of data and it’s data that can enrich the discussion,” Trinidad explains.

For Trinidad, however, he believes that his biggest contribution in terms of scholarship is in motivating and inspiring teachers and students to do good research. He has delivered dozens of seminars and talks on research, and has authored two books on the topic: *Researching Philippine Realities: A Guide to*

Qualitative, Quantitative, and Humanities Research which won the National Book Awards for Best Book on Professions in 2019, and *Error-Proofing Your Research: Common Mistakes and How to Address Them*.

These two books specifically draw on Philippine examples and experiences in discussing research and have become required reading in several colleges and high schools. “We need a body of knowledge that is responsive to our realities,” Trinidad insists.

Trinidad attributes his passion for the education sector to Ateneo’s supportive scholarly environment.

“It’s that intellectual and personal support that’s been very helpful in my trajectory as a researcher. You can’t get that community anywhere else. It’s a smart community but it’s also a caring community,” he concludes.

Get in touch with Trinidad at jtrinidad@ateneo.edu.

EDUCATION REFORM AND TRANSFORMATION

Making education accessible through technology

CARLOS OPPUS has taught at the Ateneo for more than three decades as a faculty member of the Department of Electronics, Computer, and Communications Engineering (ECCE) since 1989. He finds teaching and research as truly rewarding, especially when he sees his students succeed in their chosen fields.

Oppus, who is trained in physics and computer engineering, is also the former director of the Ateneo Innovation Center (AIC), which aims to bring innovative research done in laboratories to reality, contributing to community and society.

His own practice in the field of electronics and computer engineering extends his positive contribution to education to communities well beyond the Ateneo campus.

Oppus and his AIC colleagues adapted the “near cloud” technology that archives digital files into a server for schools in remote communities to access even without an internet connection. The system, dubbed

as EduCloud, became even more relevant during the early part of the COVID-19 pandemic when remote learning was implemented.

“During the pandemic, we saw that many students had no means to connect to or pay for internet connectivity. So we thought—and this was when I joined the team—why not make a server that we could deploy in schools so teachers and students can download modules and other educational resources on any device with wifi even if they’re offline,” Oppus recalls.

Through this system, learners and teachers can also access educational videos, software, and even Wikipedia offline. Students can likewise upload their assignments to the server, and teachers can download these submissions as well. The team partnered with Ateneo’s Department of Mathematics to include their Mathplus apps in the EduCloud server. Funded by the Department of Science and Technology (DOST), the apps are designed to help students

learn mathematical concepts and skills in blended and online learning settings.

Costing only PHP 10,000 (roughly USD 180), EduCloud can hold one terabyte of data. While they donated the first few units to the community that they first served, AIC also capacitates its partner-communities to build and maintain their own low-cost EduCloud systems.

Oppus says the project would not be possible if not for the resources and funding provided by the Ateneo’s University Research Council, as well as additional support from the School of Science and Engineering and his home department.

“As ECCE, this is our contribution to bridging a gap. It makes education accessible even to those without access,” Oppus says.

To know more about EduCloud and near-tech cloud technology, visit resiliencetoolkit.ph/near-cloud-tech.



Empowering resilient communities through sustainable technologies

The Philippines is among the world's most vulnerable countries to the climate crisis. To address this threat, researcher **PAUL CABACUNGAN** and his colleagues at the Ateneo Innovation Center (AIC) have developed sustainable technologies that seek to empower their partner communities. Cabacungan received his MS Electronics Engineering from the Ateneo de Manila University.

AIC's research projects have contributed to community resilience, health, and well-being by exploring viable alternatives that respond to a partner community's needs, and teaching them how to build, use, and maintain these technologies. "Our approach of teaching communities allows poor partner communities to access inexpensive, state-of-the-art devices, and gives them more environment-friendly options," Cabacungan explains.

Among the many innovative research projects Cabacungan and the AIC team developed is the solar-powered Clean Water Systems, which harvest, filter, and purify rainwater for safe drinking in disaster-stricken communities. More than 150 units have already been installed across the country. This system has been recently deployed in several areas severely affected by typhoons in 2022 such as Capiz, Cebu, and Southern Leyte.

Even beyond a disaster's aftermath, the technology can also be used as alternative water and power sources, and even as an alternative source of income. Partner-communities earn as much as PHP 30,000 (roughly USD 530) per month for selling the treated water.

Another technology that AIC deploys to vulnerable communities is hydroponic farming, which can serve as an alternative and nutritious food source while providing sustainable livelihood. Each harvest nets as much as PHP 8,100 (roughly USD 145) for partner communities. The hydroponic system, which is installed in roofs, also acts as an urban heat shield.

"I want to help survivors get back on their feet after a disaster by having alternative sources of power and drinking water and provide livelihood options through protective and precision agriculture," Cabacungan discloses.

Cabacungan attributes the wide range of projects his team generates to the diverse and supportive scholarly community and research infrastructure in Ateneo. "Through Ateneo's efforts to support research projects, I have been given the opportunity to work with experts in the field and with inspiring mentors."

To know about the Ateneo Innovation Center's work, visit ateneoinnovation.org.

Mainstreaming environmental sustainability through systems-based thinking

CHARLOTTE KENDRA GOTANGCO GONZALES

earned her doctoral degree in Earth and Atmospheric Sciences from Purdue University in 2011. She is an associate professor at the Department of Environmental Science (ES), and the current director of the Ateneo Institute of Sustainability (AIS). AIS serves as Ateneo's hub for sustainable development, engaged in research, environmental education, and raising awareness of environmental issues.

Gotangco Gonzales is also part of the Ateneo Human-Environment Dynamics research group under the ES Department and the School of Science and Engineering. She specializes in the study of complex interactions between natural systems and human activity. Their research group, she explains, "employs systems thinking and industrial ecology techniques to look at topics that intersect the natural sciences and the social sciences."

While specialization is important in addressing climate change, she believes that they would eventually require a "big picture" perspective

as challenges become more complex. "I think there is also room for people who can think across specializations, across disciplines and across sectors to see how they can connect, and how we might leverage those connections to come up with new perspectives or paradigms and ways to address more complex socio-ecological problems," she goes on to say.

The goal, Gotangco Gonzales says, is for "sustainable alternatives to become the mainstream, not the alternative."

Some of AIS's research might be specific to Ateneo, but they have yielded important insights that can also be applied externally. One example is applying system dynamics modeling and material flow analysis of rice waste in the Ateneo campus. The study, done in collaboration with Abigail Favis, assistant professor in the ES Department, produced new insights on food waste. "Most people think the waste is downstream but we have discovered that there are upstream sources of that waste," she says, such as surplus of cooked rice in the cafeteria. Gotangco Gonzales hopes that their research will be

replicated elsewhere given food waste's implications for food security. Another project they are developing with students is accounting Ateneo's carbon footprint, which Gotangco Gonzales hopes to serve as a model for other institutions.

One of the biggest challenges in her field, however, is creating dynamic models specific to the needs of their stakeholders. "We are building these ourselves and we are looking at the data that are available to us to help understand the system as much as possible, because most of the time these models are not a one-size-fits-all; they need to be adapted and contextualized to their specific situation."

From her experience, creativity and critical thinking are both key in the process of innovation. Ateneo has provided her with a space that fosters both, as well as the necessary connections to make their work truly enabling and engaging in view of today's challenges.

To know more about the Ateneo Institute of Sustainability's research, visit ateneo.edu/ais/research.

Contextualizing autism detection for Filipino children

ANGEL DY is a medical doctor who specializes in autism and neurodevelopmental disorders. Given that research on autism in the Philippines is largely limited, much of Dy's research was carried out with the aim of creating a larger pool of data on autism and neurodevelopmental disorders in the country.

Her work, in collaboration with UC Davis MIND Institute founding director Randi Hagerman, focused specifically on Fragile X syndrome, and its presence, presentations, and prevalence in the Philippine population. Fragile X syndrome is a genetic disorder which usually causes social and behavioral challenges in those who were diagnosed with it. It is also known to cause intellectual disability and is known to have a higher prevalence in individuals with autism.

"It provided an opportunity to assess or provide assessments for families with children with autism. And at the same time, looking at different genetic causes for autism... we were able to provide free of charge assessment for those families who accepted the invitation to participate in our research work as well," Dy points out.

Alongside data gathering which seeks to inform policy, Dy's research has also been effective in community work and capacity building efforts for researchers interested in autism. Aside from their work on autism, they also conduct community mental health training for local government units through partnerships nurtured with the Philippine Department of Health, the World Health Organization, Autism Society of the Philippines, as well as different universities and professionals in Davao and Iloilo. Some of these efforts have been made possible by the Ateneo de Manila University Research Council's internal research funding.

The field of autism is a sector that needs a lot of support. There are still many gaps both in the clinical setting and in primary care that leave the sector vulnerable. One of the goals of Dy's research is to bridge those gaps.

"There are so many international guidelines and recommendations. They don't all apply to us, or we aren't able to apply them because we don't have the resources that they entail. And we're hoping

that by doing research work, by profiling and understanding what autism looks like in the Philippines, what support they need— then we can actually plan interventions for them," she says.

Dy notes how the Ateneo community has helped her research pursuits thrive in so many ways. "We are able to do interdisciplinary work not just within the doctors in the Ateneo School of Medicine and Public Health (ASMPH), but even in collaboration with faculty members from, let's say Loyola Schools or Ateneo Professional Schools and even beyond." She then explains that "we are able to collaborate with local government units and other organizations because of Ateneo university's resources as well. They are willing to partner with us and collaborate with us."

For more information on ASMPH's research related to neuro-developmental disorders, visit acri.ph/research/neuro-developmental-disorders. The Ateneo Center for Research and Innovation (ACRI) is the research unit of the Ateneo School of Medicine and Public Health. To know more about their work, visit acri.ph.

Building mental health resilience through community-led interventions

REGINA HECHANOVA is among the leading psychologists in the Philippines today. Her research is invested in public mental health, which focuses on those who are distressed but may not necessarily need clinical intervention. A professor in the Ateneo De Manila's Department of Psychology, she was named among the Outstanding Young Scientists of the Philippines in 2005 by the National Academy of Science and Technology.

"Only a certain percentage, maybe less than 15% of people, really need clinical therapy. A lot more just need self help— informal interventions. That's what we're trying to do in the country— trying to introduce evidence-based interventions that are culturally appropriate to the Filipino people," Hechanova explains.

Her research began in the aftermath of Super Typhoon Haiyan in 2013, as its effects left many affected citizens distressed, and revealed a greater need for adequate mental health care systems and interventions. She then led a team that developed the *Katatagan* or resiliency framework.

"A lot of people think that resiliency is personality—it's innate. But it's actually a skill. It can be developed. So we identified six skills: Knowing your strengths, managing your physical reactions to stress, managing your thoughts and your feelings, managing your behaviors— your lifestyle— and then we talk about problem solving," Hechanova says.

The *Katatagan* program was first tested on students affected by Haiyan, which proved to be a success. "It helped them adjust and kept them sane, reduced the suicide ideation, kept them from thinking about harming themselves," she reveals.

There are only 500 psychiatrists for more than 100 million Filipinos. With the country's meager resources for mental health, Hechanova's intervention attempts to shift the paradigm of mental health practices towards empowering communities to provide evidence-based interventions geared towards mental health care. Beyond disasters, the program has been rolled out in various communities, and has been adapted for community-based drug rehabilitation and transformed to online-based programs launched during the onset of the COVID-19 pandemic.

Hechanova is grateful for being surrounded by a generous community, inspired by the Atenean value of "persons-for-and-with-others." This environment has motivated her to continue the work she does for communities.

"Research is a form of service. And I think that is something that researchers ought to aspire for; that the research that we do doesn't just end in publications or journals; it is actually lived," she concludes.

Access the *Katatagan* online course at selfhelp.cbdr.org.ph/courses/free-courses/katatagan.

Understanding each other's language across the political divide

CRISTINA MONTIEL's interest in political psychology began with her work as an activist during the Martial Law era in the 1970s and 1980s. This tumultuous time left her with many questions about the personal and collective mind in relation to political engagement. Now Professor Emeritus, she has been with the Ateneo De Manila's Department of Psychology for the last 45 years. A world-renowned scholar, Montiel was elected Academician by her peers to the National Academy of Science and Technology in 2021. In 2010, the American Psychological Association's Peace Psychology Division honored her with the Ralph White Lifetime Achievement Award.

Her latest work draws on computational social science to understand the deep societal divides that continue to linger since her activist days. By analyzing discourse on social media, Montiel has been able to unpack the contested meanings which fuel political and cultural conflict in Philippine society and abroad.

"Culture for me is shared meaning. And the division comes when groups have different meanings of an event or episode, or a reality that's

very, very important, maybe even central to a society," she says.

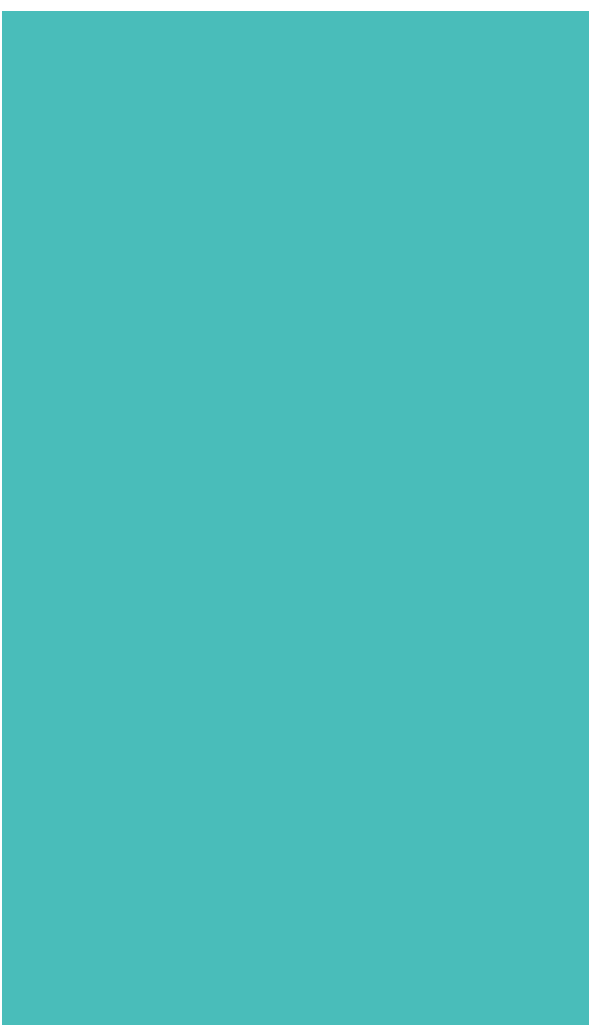
Her research has analyzed discourse related to the People Power Revolution of 1986, the Duterte administration's push for federalism, leadership and the COVID-19 pandemic, and the 2022 Philippine presidential elections.

Given the many lines that divide society, Montiel's work seeks to strengthen democracy by providing tools that facilitate listening and relating to those with differing views in their own language.

It is this kind of research that Ateneo wishes to foster, through mentorship and collaboration with different departments and generations of researchers. "I love working with young faculty members and graduate students because they are not boxed in," she discloses.

Amid her accomplishments and contributions to political psychology, Montiel is not done yet, as she hopes to collaborate with fellow researchers from the Global South, and to continue working with young researchers and students.

To read more of Montiel's work, visit works.bepress.com/cristina-montiel.



Writing childrens' books for a more inclusive society

GLENDA ORIS, who teaches in the *Kagawaran ng Filipino* (Department of Filipino), is known for her work in the area of children's literature, specifically picture books and historical fiction for young adults. Oris has won acclaim for her books from the Philippines' top literature prizes such as the Palanca Awards and the National Children's Book Awards.

"At the beginning I didn't know exactly what I wanted to write about. I just wanted to write about children because a lot of the issues in the world could have been and still could be prevented if we focused more on the formation of children," Oris explains.

Oris is convinced that her research is consistent with her advocacies in children's rights and promotion of cultural heritage. For instance, her book *Looking Out For Heroes* promotes public art and the sense of rootedness, while the *Ayun O!* look-and-find picture book series seeks to preserve regional languages.

Her most recent book, *Ako ay May Kiki (I Have a Vagina)* is a brave intervention in children's literature. It promotes proper hygiene and naming of the reproductive parts, as well as the prevention of sexual abuse. Recommended by the Child Protection Network as a resource for pediatricians, the book also contains tips for parents on caring and protecting their children's reproductive health, as well as contact information of agencies that address cases of sexual abuse. *Ako ay May Kiki* has been translated to Italian as *Ho una vagina*, and was launched in 2022 by the Philippine Consulate in Milan.

"It is important to come up with creative works that speak directly and easily to children, works that they can relate to, that teach them about themselves, protect themselves," Oris insists.

Producing children's literature requires a lot of work—from considering age-appropriate language and illustrations, as well as specific developmental

concerns. Oris thus points out that "children's literature is both research and creative work." All the more, she believes in their promise for lasting change.

"They have the greatest potential to correct systems that have gone wrong, to lay down foundations of a more inclusive, diverse, equitable system in our society," Oris says.

Ateneo, which Oris describes as a "fertile" ground for the arts, has fostered a vibrant and inclusive community that serves as a haven for artists from diverse backgrounds to explore and experiment fearlessly with the workings of their creative imagination. Oris hopes that the university can continue expanding its support for creative interventions.

"What I wish for is for the university to widen its perspective and be creative when it comes to addressing concerns in the Philippines."

Get in touch with Oris at goris@ateneo.edu.



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